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What is claimed is:

1-26 all

[Claim 1] 1. A method of cleaning an item comprising a cleaning apparatus, employing a water source and a bleaching agent wherein the bleaching agent is a halogen dioxide composition.

[Claim 2] 2. The method of cleaning an item wherein the halogen dioxide composition is chlorine dioxide.

[Claim 3] 3. The method of claim 1 wherein the cleaning method further includes a surfactant.

[Claim 4] 4. The method of claim 3 wherein the surfactant is a detergent system.

[Claim 5] 5. The method of claim 3 wherein the surfactant delivers an in use pH of at least 2.5.

[Claim 6] 6. The method of claim 1 where in the cleaning method further includes a surfactant delivering an in use pH in the range of 7-10.5.

[Claim 7] 7. The method of claim 3 where in the surfactant and the bleaching agent are placed in the cleaning apparatus at approximately the same time.

[Claim 8] 8. The method of claim 7 wherein the bleaching agent is chlorine dioxide.

[Claim 9] 9. The method of claim 8 wherein the chlorine dioxide is produced using a sodium chlorite in the presence of an acid, a two or three component generator or electrolytic means.

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~~NaClO₂~~
Sodium Chloride

~~Chloride~~

[Claim 10] 10. The method of claim 1 where in the halogen dioxide is present in the washing system in at least 2 ppm.

~~NaCl~~

~~NaOCl~~

[Claim 11] 11. The method of claim 1 where in the halogen dioxide is present in the washing system at 20 to 500 ppm.

[Claim 12] 12. A method according to claim 1 wherein the wash temperature of the system is at least 10°C.

[Claim 13] 13. A method according to claim 1 wherein the wash temperature of the system is in the range of 40-60°C.

warm

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[Claim 14] 14. A method of cleaning an item soiled with chlorhexidine gluconate without setting the stain comprising a cleaning device, a water source and a bleaching agent.

[Claim 15] 15. The method of claim 14 where in the bleaching agent is a halogen dioxide.

[Claim 16] 16. The method of claim 14 where in the bleaching agent is chlorine dioxide.

[Claim 17] 17. The method of claim 14 wherein the cleaning method further includes a surfactant.

[Claim 18] 18. The method of claim 17 wherein the surfactant is a detergent system.

[Claim 19] 19. A method of cleaning an item comprising a cleaning apparatus, employing a water source, the water from the water source passes into the cleaning apparatus where the soiled item is contained, to the water and item there is added a surfactant and a bleaching agent wherein the bleaching agent is a halogen dioxide composition.

[Claim 20] 20. The method of claim 19 wherein the bleaching agent is chlorine dioxide.

[Claim 21] 21. The method of claim 19 wherein the surfactant is a detergent system.

[Claim 22] 22. The method of cleaning fabric items wherein the fabric item is placed into a cleaning apparatus with a water source leading to the fabric item and a halogen dioxide is added to the water from the water source to clean and bleach the fabric item.

[Claim 23] 23. The method of cleaning fabric items of claim 22 further including a surfactant.

[Claim 24] 24. The method of cleaning fabric items of claim 23 wherein the surfactant is a laundry detergent.

[Claim 25] 25. The method of cleaning a fabric item of claim 24 wherein the halogen dioxide is chlorine dioxide.

[Claim 26] 26. The method of cleaning a fabric item of claim 24 wherein the halogen dioxide bleaching agent and the laundry detergent are added to the cleaning apparatus at approximately the same time.